Matthew L. Jones, The Good Life in the Scientific Revolution: Descartes, Pascal, Leibniz, and the Cultivation of Virtue (Chicago: University of Chicago Press, 2006)

The Good Life in the Scientific Revolution: Descartes, Pascal, Leibniz and the Cultivation of Virtue. By Matthew L. Jones. (Chicago, Ill.: University of Chicago Press, 2006. Pp. xviii, 384. $27.50.)

The history of mathematics used to be written exclusively for mathematicians, but in the last two or three decades it has undergone a transformation as historians have shown its role in the broader developing culture of natural knowledge. A major focus of this work has been the historical process whereby mathematics was transformed from a craft practice, held to have no relevance to understanding the real world, into the supreme mainstay of natural philosophy. Most contemporary readers would have been puzzled by the title of Isaac Newton's great book, *Mathematical Principles of Natural Philosophy*, because natural philosophy was supposed to explain phenomena in terms of causes, and mathematics could not provide physical reasons for anything. The new histories about how mathematics changed natural philosophy have always taken account of the large measure of rhetoric used by mathematicians in an attempt to enhance the standing of their discipline. Hitherto, the focus has been on the rhetoric of certainty, the claim that mathematics offers proofs and certain truths while philosophy deals only in speculation, and the rhetoric of practical utility, the claim that only mathematical knowledge can lead to technological advances.

Matthew L. Jones's excellent book extends this new historiography of mathematics into a completely unexplored area. His concern is with the way in which mathematics and its practice was claimed to be the best way of improving the mind, not just with regard to technical acuity but as a way of improving its moral performance. Again, as Jones shows, the improving power of mathematics was not just seen in terms of enhancing clarity of thought, powers of concentration, or logical agility, but it was also claimed as a way of enhancing one's ability to recognize and understand harmonies, for example, or the ways in which the infinite can be encompassed in the finite, thereby revealing the wonders in creation and the existence of its Creator. To think like a mathematician was in some ways to think like God, and so the pursuit of mathematical excellence was the best means to self-improvement.

Jones devotes two chapters each to three of the most brilliant mathematicians of the seventeenth century to build up a fascinating and highly original account of their ideas on the self-improving aspects of mathematics. If there is a weakness in the book it is only that it leaves the reader wondering whether a similar story would emerge if lesser, second-rank mathematicians had been studied, or indeed, if equally gifted mathematicians had been chosen, but ones who did not share Descartes', Pascal's, or Leibniz's interest in metaphysics—men like Pierre de Fermat, Christian Huygens, or even Isaac Newton. But this is only to point out that Jones is a pioneer in new territory, and there can be little doubt that subsequent studies will follow his lead.

University of Edinburgh John Henry